

CLAIMS

What is claimed is:

1 1. A system for providing a server-on-a-USB on a computing device, the
2 computing device including at least a processor and an optional mass storage device, the
3 system comprising:
4 bus interface logic for interfacing between the computing device and the
5 system, the bus interface logic allowing the computing device to detect the system; and
6 a memory for storing a server image for the server and a USB Local Control
7 Program, the USB Local Control Program for booting up the server and preparing the
8 computing device for use as the server, the server image being provided to the computing
9 device using the USB Local Control Program.

10
1 2. The system of claim 1 further comprising:
2 a plurality of control button connectors;
3 a plurality of buttons, the plurality of control button connectors for allowing
4 the server to be turned on, shut down gracefully, or restored to its initial state, by a single
5 press of at least one of the plurality of buttons connected to the plurality of control button
6 connectors; and
7 a plurality of LED and LCD connectors allowing the system status to be
8 displayed or shown.

9
1 3. The system of claim 1 wherein the memory is a flash memory.
2

- 1 4. The system of claim 1 further comprising: control logic.
- 2
- 1 5. The system of claim 4 further comprising:
- 2 a push button; and wherein the control logic further includes a one-button init
- 3 connector, coupled with the push button, for restoring the server to a default state in
- 4 response to the push button being depressed for a particular time.
- 5
- 1 6. The system of claim 4 further comprising:
- 2 a push button; and wherein the control logic further includes a shut-down
- 3 connector, coupled with the push button, the shut-down connector shutting down the server
- 4 gracefully if the push button is pressed for a particular time.
- 5
- 1 7. The system of claim 4 wherein the control logic further includes a power-on
- 2 connector; and wherein the control logic further includes a power-on connector connecting
- 3 to the power-on connector of the system board, coupled with the shut-down push button, the
- 4 power-on connector further turns the power supply on if the push button is depressed when
- 5 the computing device is supplied with AC power.
- 1 8. The system of claim 4 further comprising: a light emitting diode (LED)
- 2 connector; and wherein the control logic further includes a status LED connector coupled
- 3 with the LED for indicating a operating status of the system.
- 1 9. The system of claim 4 further comprising:

2 a light emitting diode (LED) connector; and wherein the control logic further
3 includes a power-on LED connector coupled with the LED for indicating a power status of
4 the system.

1 10. The system of claim 4 further comprising:
2 a liquid crystal display (LCD) connector; and wherein the control logic
3 further includes a LCD display connector coupled with the LCD for indicating a operating
4 status of the system.

1 11. The system of claim 1 wherein the bus interface logic, the USB local control
2 logic, a flash memory and a set of control button connectors, light emitting diodes (LED)
3 connectors and a liquid crystal display (LCD) connector are incorporated into a single board.

1 12. A method for providing a server-on-a-USB on a computing device, the
2 computing device including at least a processor and an optional mass storage device, the
3 method comprising the steps of:

4 (a) providing a board including bus interface logic, a USB Local Control
5 Program, a flash memory, the bus interface logic for interfacing between the computing
6 device and the system, the bus interface logic allowing the computing device to detect the
7 system, the USB Local Control Program coupled with the bus interface logic, the USB Local
8 Control Program for booting up the server and preparing the computing device for use as the
9 server, the memory for storing a server image for the server, the server image being provided
10 to the computing device using the USB Local Control Program; and

11 (b) allowing a user to utilize the server access using the board.

1 13. The method of claim 12 wherein the board further includes a plurality of
2 control button connectors, a plurality of light emitting diodes (LED) connectors and a liquid
3 crystal display (LCD) connector, the plurality of control button connectors allowing the
4 server to be turned on, shut down gracefully, or restored to an initial state, by a single press
5 of buttons connected to the plurality of control button connectors, the plurality of LED
6 connectors and the LCD connector allowing the system status to be displayed or shown.

1 14. The method of claim 12 wherein the memory is a flash memory.

1 15. The method of claim 12 wherein the board further includes control logic.

1 16. The method of claim 15 wherein the board further includes a push button; and
2 wherein the control logic further includes a one-button init connector, coupled with the push
3 button, for restoring the server to a default state in response to the push button being
4 depressed for a particular time.

1 17. The method of claim 15 wherein the board further includes a push button; and
2 wherein the control logic further includes a shut-down connector, coupled with the push
3 button, the shut-down connector shutting down the server gracefully if the push button is
4 pressed for a particular time.

1 18. The method of claim 15 wherein the control logic further includes a power-on
2 connector; wherein the computing device includes a system board; and wherein the control
3 logic further includes a power-on connector connecting to a power-on connector of the
4 system board for the computing device, coupled with the shut-down push button, the power-
5 on connector further turns the power supply on if the push button is depressed when the
6 computing device is supplied with AC power.

1 19. The method of claim 15 further comprising the step of:
2 providing a light emitting diode (LED) connector; and wherein the control
3 logic further includes a status LED connector coupled with the LED for indicating a
4 operating status of the system.

1 20. The method of claim 15 further comprising the step of:
2 providing a light emitting diode (LED) connector; and wherein the control
3 logic further includes a power-on LED connector coupled with the LED for indicating a
4 power status of the system.

1 21. The method of claim 15 further comprising the step of:
2 providing a liquid crystal display (LCD) connector; and wherein the control
3 logic further includes a LCD display connector coupled with the LCD for displaying a
4 operating status of the system.

1 22. The method of claim 12 wherein the bus interface logic, the local USB

2 control logic, the flash memory and a set of control button connectors, light emitting diodes
3 (LED) connectors and a liquid crystal display (LCD) connector, are incorporated into a
4 single board.

1 23. A method for providing a server-on-a-USB on a computing device, the
2 computing device including at least a processor and an optional mass storage device, the
3 method comprising the steps of:

4 (a) detecting a system for providing the server using bus interface logic in the
5 system; accessing a USB Local Control Program on a **memory**;

6 (b) using the USB Local Control Program for preparing the computing device
7 for use as the server; and

8 (c) booting up the server, for accessing **the** memory in the system for storing
9 a server image for the server, the server image being provided to the computing device using
10 the USB Local Control Program.

1 24. The method of claim 23 further comprising the steps of: using a plurality of
2 control button connectors allowing the server to be turned on, shut down gracefully, or
3 restored to its initial state, by a single press of buttons connected to the plurality of control
4 button connectors. using the LED and LCD connectors allowing the system status to be
5 displayed or shown.